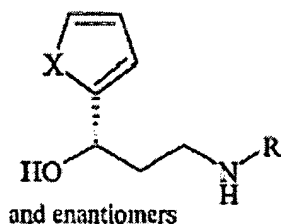


Amendments To The Claims

This Listing Of Claims will replace all prior versions, and listings, of the claims in the application.

Listing of the Claims:

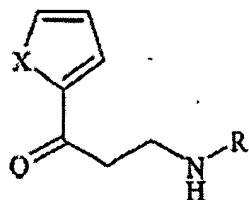
Claim 1 (Currently Amended): A process ~~Process~~ for the preparation of a chiral ~~compounds~~ compound of formula:



I

wherein X represents S or O, and R represents C₁₋₆-alkyl, C₃₋₈-cycloalkyl, aryl or aralkyl, each aryl or aralkyl being optionally further substituted with one or more C₁₋₄-alkyl groups and/or halogen atoms,

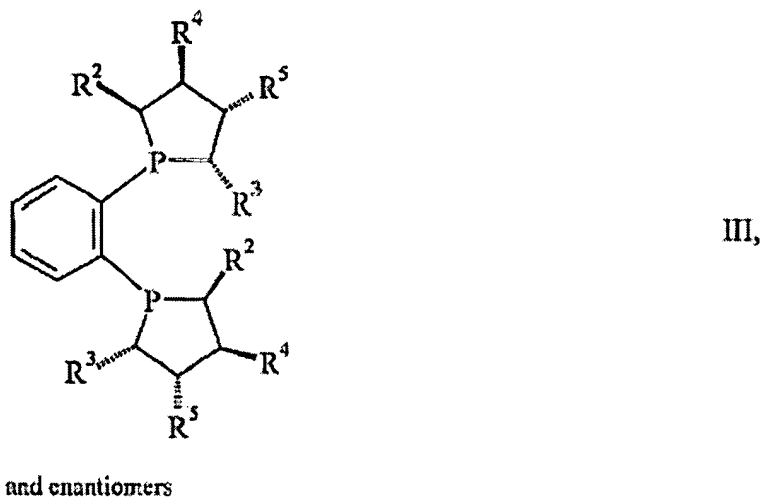
which process comprises the asymmetric hydrogenation of a compound ~~compounds~~ of formula:



wherein X and R are as defined above,

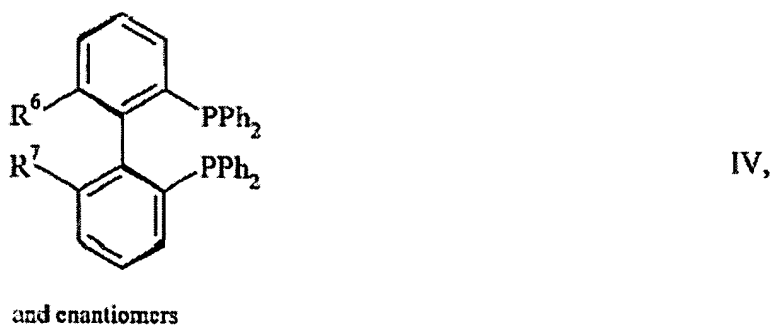
in the presence of a transition metal complex of a chiral bidentate phosphine ligand and, optionally, a base.

Claim 2 (Currently Amended): The process of claim 1 wherein the chiral bidentate phosphine ligand is a compound of formula:



wherein R² and R³ are methyl, ethyl or isopropyl, and wherein R⁴ and R⁵ are hydrogen or R⁴ and R⁵ together form an isopropylidenedioxy group.

Claim 3 (Currently Amended): The process of claim 1, wherein the chiral bidentate phosphine ligand is a compound of formula:



wherein R⁶ and R⁷ are methoxy or ethoxy or wherein R⁶ and R⁷ together form a 1,3-propylidenedioxy or a 1,4-butyldenedioxy group.

Claim 4 (Original): The process of claim 1, wherein the chiral bidentate phosphine ligand is selected from the group consisting of (S,S)-Me-DuPhos, (S,S)-Et-DuPhos, (S,S,S,S)-Me-KetalPhos and (S)-C4-TunaPhos.

Claim 5 (Currently Amended): The process of ~~any one of claims 1 to claim~~ 4, wherein the transition metal is Ru or Rh.

Claim 6 (Currently Amended): The process of ~~any one of claims 1 to claim~~ 5, wherein the transition metal complex of a the chiral bidentate phosphine ligand comprises at least one fiene, alkene or arene as stabilizing ligand.

Claim 7 (Currently Amended): The process of claim 6, wherein the transition metal complex of a the chiral bidentate phosphine ligand comprises at least one stabilizing ligand selected from the group consisting of 1,5-cyclooctadiene and p-cymene.

Claim 8 (Currently Amended): The process of ~~any one of claims 1 to claim~~ 7, wherein the counterion of the transition metal complex of a the chiral bidentate phosphine ligand is selected from the group consisting of $C1^-$, BF_4^- , AsF_6^- , SbF_6^- and triflate.

Claim 9 (Currently Amended): The process of ~~any one of claims 1 to claim~~ 8, wherein the catalyst is prepared by mixing a transition metal complex of the formula $[Rh(cod)_2]^+BF_4^-$ with a chiral bidentate phosphine selected from the group consisting of (S,S)-Me-DuPhos, (S,S)-Et-DuPhos and (S,S,S,S)-Me-KetalPhos.

Claim 10 (Currently Amended): The process of ~~any one of claims 1 to claim~~ 9, wherein the base is a hydroxide, a methanolate or an ethanolate of lithium, sodium or potassium or a mixture of said bases.

Claim 11 (Currently Amended): The process of ~~any of claims 1 to~~ claim 10, wherein the hydrogen pressure during the reaction is in the range of 1 to 60 bar ~~and more particularly preferred in the range of 10 to 30 bar.~~

Claim 12 (Currently Amended): A compound ~~Compounds~~ of formula:



~~and its or an addition~~ salt salts of a proton acid acids, of said compound of formula 1, wherein X represents S or O, and R represent C₁₋₆-alkyl, C₃₋₈-cycloalkyl or benzyl with the exception of compounds wherein X is S and R is methyl.

Claim 13 (New): The process of claim 1, wherein the transition metal is Ru or Rh.

Claim 14 (New): The process of claim 1, wherein the transition metal complex of the chiral bidentate phosphine ligand comprises at least one fiene, alkene or arene as stabilizing ligand.

Claim 15 (New): The process of claim 14, wherein the transition metal complex of the chiral bidentate phosphine ligand comprises at least one stabilizing ligand selected from the group consisting of 1,5-cyclooctadiene and p-cymene.

Claim 16 (New): The process of claim 1, wherein the counterion of the transition metal complex of the chiral bidentate phosphine ligand is selected from the group consisting of C1⁻, BF₄⁻, AsF₆⁻, SbF₆⁻ and triflate.

Claim 17 (New): The process of claim 1, wherein the catalyst is prepared by mixing a transition metal complex of the formula $[\text{Rh}(\text{cod})_2]^+\text{BF}_4^-$ with a chiral bidentate phosphine selected from the group consisting of (S,S)-Me-DuPhos, (S,S)-Et-DuPhos and (S,S,S,S)-Me-KetalPhos.

Claim 18 (New): The process of claim 1, wherein the base is a hydroxide, a methanolate or an ethanolate of lithium, sodium or potassium or a mixture of said bases.

Claim 19 (New): The process of claim 11, wherein the hydrogen pressure during the reaction is in the range of 10 to 30 bar.

Claim 20 (New): The process of claim 1, wherein the hydrogen pressure during the reaction is in the range of 1 to 60 bar.

Claim 21 (New): The process of claim 20, wherein the hydrogen pressure during the reaction is in the range of 10 to 30 bar.